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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/704,881	11/02/2000	Richard L. Watkins	4022.000007	4644

7590 07/06/2005

Harness Dickey & Pierce PLC  
P O Box 828  
Bloomfield Hills, MI 48303

EXAMINER
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MIGGINS, MICHAEL C

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/704,881

Applicant(s)

WATKINS

Examiner

Michael C. Miggins

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 10-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-19 and 26-28 is/are rejected.
- 7) ☒ Claim(s) 20-25 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

**REJECTIONS WITHDRAWN**

1. The rejection of claim 9 has been withdrawn since applicant has now canceled claim 9.

**REJECTIONS REPEATED**

2. The 35 USC 103(a) rejections are repeated for the reasons of record set forth in the non-final rejection of 11/16/2004, pages 3-12, paragraphs 3-8.

In claim 1, applicant has inserted the limitation "annealing the laminate at a temperature at least about 80 degrees C". However, PA-12 has a glass transition temperature of 37 degrees C and Ramesh teaches an annealing temperature of 100 degrees C (column 15, lines 10-27). Therefore the Ramesh temperature is 63 degrees over the glass transition temperature of PA-12. It is well settled that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges or an optimum value of a result effective variable involves only routine skill in the art (MPEP 2144). It would have been well within the purview of one of ordinary skill in the art to have annealed at a higher temperature in order to provide greater adhesion between the layers. Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided annealing the laminate at a temperature at least about 80 degrees C in order to provide greater adhesion between the layers.

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Furthermore, applicant requested that the glass transition temperatures alleged in the non-final rejection of 11/16/04, paragraph 4 be supported by appropriate evidence. The examiner therefore provides herein citations from the Polymer Science Dictionary showing that the glass transition temperatures of PA-6 and PA-12 are 70 and 37 degrees C respectively (see the provided pages 345-346 provided herein). Also, the Polymer Science Dictionary shows that the glass transition temperature of PA-6 is 20 and -20 degrees C at 50 and 100% humidity (see the provided page 345 provided herein). Therefore, an annealing temperature of 100 degrees C is clearly 80 degrees above the glass transition temperature of PA-6.

### **NEW REJECTIONS**

3. There are no new rejections.

### **ANSWERS TO APPLICANT'S ARGUMENTS**

4. Applicant's arguments filed 4/18/05 have been carefully considered but are deemed unpersuasive.

Applicant argues that Ramesh does not teach "annealing the laminate at a temperature at least about 80 degrees C". However, PA-12 has a glass transition temperature of 37 degrees C and Ramesh teaches an annealing temperature of 100 degrees C (column 15, lines 10-27). Therefore the Ramesh temperature is 63 degrees over the glass transition temperature of PA-12. It is well settled that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable

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ranges or an optimum value of a result effective variable involves only routine skill in the art (MPEP 2144). It would have been well within the purview of one of ordinary skill in the art to have annealed at a higher temperature in order to provide greater adhesion between the layers. Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided annealing the laminate at a temperature at least about 80 degrees C in order to provide greater adhesion between the layers.

Furthermore, applicant requested that the glass transition temperatures alleged in the non-final rejection of 11/16/04, paragraph 4 be supported by appropriate evidence. The examiner therefore provides herein citations from the Polymer Science Dictionary showing that the glass transition temperatures of PA-6 and PA-12 are 70 and 37 degrees C respectively (see the provided pages 345-346 provided herein). Also, the Polymer Science Dictionary shows that the glass transition temperature of PA-6 is 20 and -20 degrees C at 50 and 100% humidity (see the provided page 345 provided herein). Therefore, an annealing temperature of 100 degrees C is clearly 80 degrees above the glass transition temperature of PA-6.

#### ***Allowable Subject Matter***

5. Claims 20-25 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With regard to claim 20, from which claims 21-25 and 29 depend, the prior art fails to teach or suggest a method from which a laminate is formed wherein the first layer comprises a thermoplastic polyurethane prepared from a polyester diol and the second layer comprises an ethylene-vinyl alcohol copolymer, and further wherein said blow molding step provides a bladder that is sealed and inflated after the annealing step. The combination of Ramesh et al. and Wang et al. disclose a post blowing annealing step but do not disclose wherein said blow molding step provides a bladder that is sealed and inflated after the annealing step.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is 571-272-1494. The examiner can normally be reached on 1:00-10:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael C. Miggins  
Primary Examiner  
Art Unit 1772



MCM  
June 30, 2005